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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,991

07/10/2003

Cheol-Jin Park

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23373

7590

02/16/2005

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EXAMINER

NGUYEN, TUYEN T

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,991

Applicant(s)

PARK, CHEOL-JIN

Examiner

TUYEN T NGUYEN

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant should clarify what is intended by a radially inner face of the receiving hole and a radially outer face of the bobbin adjacent to the radially inner face of the receiving hole *are perpendicular to the upper surface of the printed circuit board throughout a total thickness of the circuit board*

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Kataja [US 2002/0057029 A1].

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Kataja discloses an apparatus for fixing a bobbin [1, 5] to a printed circuit board [6] for use in a transformer, around an upper portion of the bobbin being around an upper portion of the bobbin being wound a coil, a lower portion of the bobbin being provided with a plurality of pins [2] connected to an end of the coil and connected to the printed circuit board of an electronic product, the apparatus for fixing the bobbin to the printed circuit board comprising:

a receiving hole [figures 1 and 3-4] formed in the printed circuit board, a size of which is minutely larger than that of the bobbin to hold the bobbin; and

a plurality of horizontal support portions [figure 3] formed at the pins of the bobbin in parallel relation to an upper surface of the printed circuit board, for allowing the bobbin to be supported on the upper surface of the printed circuit board when the bobbin is inserted into the receiving hole.

Regarding claim 2, Kataja further discloses a fixing portion [4] extending from the horizontal support portion in a perpendicular relation to the upper surface of the printed circuit board so that the pins are inserted into an opening formed in the printed circuit board.

Regarding claim 4, Kataja inherently discloses that the horizontal support portions providing support for the weight of the bobbin on the printed circuit board.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3, as best understood in view of the rejection under 35 USC 112 second paragraph, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kataja in view of Chieng-heng [US 5,165,056].

Kataja discloses the instant claimed invention except for a radially inner face of the receiving hole and a radially outer face of the bobbin adjacent to the radially inner face of the receiving hole *are perpendicular to the upper surface of the printed circuit board throughout a total thickness of the circuit board*

Chieng-heng discloses an apparatus for fixing a bobbin [figure 3] to a printed circuit board [3] for use in a transformer, around an upper portion of the bobbin being around an upper portion of the bobbin being wound a coil, a lower portion of the bobbin being provided with a plurality of pins [2] connected to an end of the coil and connected to the printed circuit board of an electronic product, the apparatus for fixing the bobbin to the printed circuit board comprising:

a receiving hole [31, figure 3] formed in the printed circuit board, a size of which is minutely larger than that of the bobbin to hold the bobbin; and

a plurality of horizontal support portions [22, figure 3] formed at the pins of the bobbin in parallel relation to an upper surface of the printed circuit board, for allowing the bobbin to be supported on the upper surface of the printed circuit board when the bobbin is inserted into the receiving hole.

wherein a radially inner face of the receiving hole and a radially outer face of the bobbin adjacent to the radially inner face of the receiving hole *are perpendicular to the upper surface of the printed circuit board throughout a total thickness of the circuit board*

It would have been obvious to one having ordinary skill in the art at the time the invention was made to bobbin/printed circuit board arrangement of Chieng-heng in Kataja for the purpose of securing the bobbin into hole of the printed circuit board.

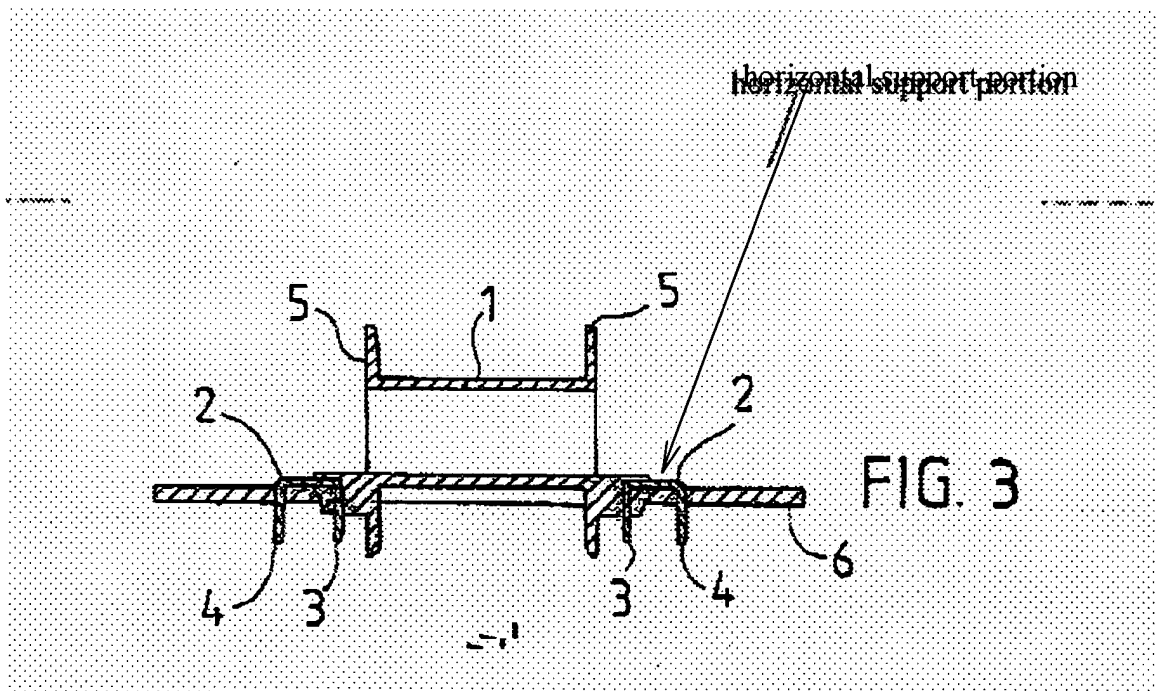
Response to Arguments

Applicant's arguments filed 10/19/2004 have been fully considered but they are not persuasive.

Applicant argues that there is simply no indication in Kataja that its connectors 2 having any support portions comparable to that recited in claim 1.

Examiner disagrees.

Examiner invite application to look at figure 3 below, horizontal support portion of pin [2], resting on the printed circuit board [6] providing the support function.



Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTN *TTN*

Truyen T. Nguyen